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WHAT IS CLAIMED IS:

1. A method of making a side curtain airbag, said method comprising the steps of:

- 5 providing a side curtain airbag pattern having a longest straight side and a longest dimension; and
- weaving a side curtain airbag fabric having a warp with said longest straight side oriented in a bias direction with respect to said warp.

2. The method as recited in claim 1, wherein said bias direction is at least 20°.

3. The method as recited in claim 1, wherein said bias direction is at most 70°.

4. The method as recited in claim 1, further comprising the step of selecting said bias direction so that wasted material is minimized.

5. The method as recited in claim 1, further comprising the step of selecting said bias direction so that said major axis of said side curtain airbag pattern is perpendicular to said warp.

6. The method as recited in claim 1, further comprising the step of selecting said bias direction so that plural airbags can be woven simultaneously.

7. The method as recited in claim 1 wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of said fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two discrete narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two discrete narrow areas of single fabric layer are separated by a separator area of at least two layers of fabric, and wherein the lengths of each single fabric layer are from 4 to 8 yarns in length, wherein said at least two single fabric layer areas are seams through said fabric that run parallel to each other, and wherein said separator area of at least two layers of fabric comprises an even number of weft yarns.

8. The method as recited in claim 7, wherein said separator area of two layers of fabric comprises at most 12 weft yarns and at least 2 weft yarns.

9. The method as recited in claim 7, wherein said at least two single fabric layers are constructed solely from two-by-two basket weave patterns and said separator area of two layers of fabric comprises four weft yarns.

10. The method as recited in claim 1, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and

- 10 wherein a weave diagram having rows and columns of filled and unfilled blocks for the fabric does not exhibit more than three consecutive unfilled blocks in any row or column.

11. The method as recited in claim 1, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and 5 wherein at least a portion of one of said at least two discrete narrow areas of single fabric layer form at least one of a non-linear seam and seal.

12. The method as recited in claim 1, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and 5 wherein said fabric has three different types of patterns, the first pattern is a repeated plain weave pattern throughout at least two layers of fabric which must always initiate at a location in the warp direction of  $4X+1$ , with X representing the number of pick arrangement a weave diagram, and at a location in the fill direction of  $4X+1$ , pick arrangement including the specific two layer plain-weave-signifying-block 10 begins at the block four spaces below it in both directions, the second pattern is an

"up-down" basket weave pattern wherein an empty block must exist and always initiate the basket-weave pattern at a location in the warp direction of  $4X+1$ , with  $X$  representing the number of repeating pick arrangements within the diagram, and at a location in the fill direction of  $4X+1$ , when a single layer fabric is desired, the pattern including the pertinent signifying "up-down" block includes an empty block within the basket-weave pick arrangement in both the warp and fill directions four spaces below it, the third pattern is basically a "down-up" basket weave pattern to a single fabric layer and must always initiate at a location in the warp direction of  $4X+1$  and fill of  $4X+3$ , or warp of  $4X+3$  and fill of  $4X+1$ , when a seam is desired, such a specific arrangement of differing "up-down" basket weave and "down-up" basket weave pattern is necessary to effectuate the continuous and repeated weave construction wherein no more than three floats or empty blocks are present simultaneously within the target fabric structure.

13. The method as recited in claim 1, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and wherein weft yarns are present in each of the fabric layer areas over and under which individual warp yarns have been woven, the at least two layer fabric areas are woven in plain weave patterns, the single fabric layer areas are woven in basket weave patterns, four weft yarns each are configured through each repeating basket weave pattern, however, anywhere from two to twelve weft yarns may be utilized within the single layer fabric areas or, the intermediate two layer fabric areas comprise each only four weft yarns within plain weave patterns, the number of such intermediate weft yarns between the single layer fabric areas must be in multiples of

two to provide the maximum pressure bearing benefits within the two seams with the at least two layer fabric areas.

14. A side curtain airbag made by a process comprising the steps of:  
providing a side curtain airbag pattern having a longest straight side and a longest dimension; and

5       weaving a side curtain airbag fabric according to said side curtain airbag pattern having a warp with said longest straight side of said side curtain airbag pattern oriented in a bias direction with respect to said warp ranging between 20° and 70°.

15. The side curtain airbag as recited in claim 1, further comprising the step of selecting said bias direction so that wasted material is minimized.

16. The side curtain airbag as recited in claim 14, further comprising the step of selecting said bias direction so that said longest dimension is perpendicular to said warp.

17. The side curtain airbag as recited in claim 14, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of said fabric and at least two discrete  
5       narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two discrete narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two discrete narrow areas of single fabric layer are separated by a separator area of at least two layers of fabric, and wherein the lengths of each  
10       single fabric layer are from 4 to 8 yarns in length, wherein said at least two single fabric layer areas are seams through said fabric that run parallel to each other, and

wherein said separator area of at least two layers of fabric comprises an even number of weft yarns.

18. The side curtain airbag as recited in claim 14, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete  
5 narrow areas of single fabric layer at discrete areas within said fabric wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two  
10 layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and wherein a weave diagram having rows and columns of filled and unfilled blocks for the fabric does not exhibit more than three consecutive unfilled blocks in any row or column.

19. The side curtain airbag as recited in claim 14, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete  
5 narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two  
10 layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and wherein at least a portion of one of said at least two discrete narrow areas of single fabric layer form at least one of a non-linear seam and seal.

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20. The method as recited in claim 14, wherein said weaving step further comprises the step of weaving said side curtain airbag fabric to have at least two layers of fabric in certain discrete areas of the fabric and at least two discrete narrow areas of single fabric layer at discrete areas within said fabric, wherein said at least two narrow areas of single fabric layer are each formed solely from a basket weave pattern of an even number of yarns, at most 12 yarns in width, wherein said at least two areas of single fabric layers are separated by an area of at least two layers of fabric, wherein the lengths of each single layer is from 4 to 8 yarns in length, and wherein said fabric has three different types of patterns, the first pattern is a repeated plain weave pattern throughout at least two layers of fabric which must always initiate at a location in the warp direction of  $4X+1$ , with  $X$  representing the number of pick arrangement a weave diagram, and at a location in the fill direction of  $4X+1$ , pick arrangement including the specific two layer plain-weave-signifying-block begins at the block four spaces below it in both directions, the second pattern is an "up-down" basket weave pattern wherein an empty block must exist and always initiate the basket-weave pattern at a location in the warp direction of  $4X+1$ , with  $X$  representing the number of repeating pick arrangements within the diagram, and at a location in the fill direction of  $4X+1$ , when a single layer fabric is desired, the pattern including the pertinent signifying "up-down" block includes an empty block within the basket-weave pick arrangement in both the warp and fill directions four spaces below it, the third pattern is basically a "down-up" basket weave pattern to a single fabric layer and must always initiate at a location in the warp direction of  $4X+1$  and fill of  $4X+3$ , or warp of  $4X+3$  and fill of  $4X+1$ , when a seam is desired, such a specific arrangement of differing "up-down" basket weave and "down-up" basket weave pattern is necessary to effectuate the continuous and repeated weave construction wherein no more than three floats or empty blocks are present simultaneously within the target fabric structure.